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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/892,882	06/28/2001	Ji Chul Lim	8733.449.00	3035
30827	7590	01/10/2005	EXAMINER	
MCKENNA LONG & ALDRIDGE LLP 1900 K STREET, NW WASHINGTON, DC 20006			NGUYEN, JENNIFER T	
			ART UNIT	PAPER NUMBER
			2674	

DATE MAILED: 01/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/892,882	<b>Applicant(s)</b> LIM ET AL.	
	<b>Examiner</b> Jennifer T Nguyen	<b>Art Unit</b> 2674	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 01 September 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This Office action is responsive to amendment filed on 09/01/2004.

#### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-6, 8-14, 16-21 and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (Patent No.: US 5,946,068) in view of Matoba et al. (Patent No.: US 6,333,771).

Regarding claims 1, 9, 17 and 19, referring to Fig. 4, Lee teaches a liquid crystal display panel (LCD), comprising: a plurality of data lines (D1-Dk) included in a display area of the LCD panel (10); a plurality of gate lines (G1-Gn) crossing the data lines, the data lines and the gate lines defining a plurality of pixels (20); a dummy data line (31) included in a non-display area outside the display area and formed in parallel to the data lines (i.e., positioned adjacent element 22 of an outermost column on the right side of the array of LCD elements 60); a plurality of switching devices (i.e., TFT) positioned at intersections between the data lines and the gate lines; and plurality of pixel electrodes (20) each driven by one of the switching device (col. 3, lines 14-47 and from col. 3, line 59 to col. 4, line 12).

Lee differs from claims 1, 9 and 19 in that he does not specifically teach each pixel to have substantially a same parasitic capacitance. However, referring to Figs. 1 and 2, Matoba teaches each pixel to have substantially a same parasitic capacitance (col. 6, lines 13-57).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the each pixel to have substantially a same parasitic capacitance as taught by Matoba in the system of Lee in order to a LCD panel which is capable of equalizing a brightness of each liquid crystal cell.

Regarding claims 2, 10, 18, 21 and 25 Lee further teaches the dummy data line (31) is supplied with a signal having an inverted phase with respect to data on a one of the data lines (Dk) adjacent to the dummy data line (from col. 3, line 59 to col. 4, line 12).

Regarding claims 3, 11, Lee further teaches a plurality of dummy switching devices (i.e., TFT) positioned intersections between the dummy data line (31) and gate lines (G1-Gn); and plurality of dummy pixel electrodes (41) each connected to one of the dummy switching devices (col. 3, lines 14-47 and from col. 3, line 59 to col. 4, line 12).

Regarding claims 4, 12, Lee further teaches the dummy data line and dummy pixels electrodes each further include a black matrix (i.e., non-display area) for blocking light (i.e., positioned adjacent element 22 of an outermost column on the right side of the array of LCD elements 60).

Regarding claims 5, 13, Lee further teaches a dummy voltage supply means (not shown) for supplying the signal to the dummy data line (31) (col. 3, lines 14-47 and from col. 3, line 59 to col. 4, line 12).

Regarding claims 6, 8, 14, 16, 23 and 24, Lee further teaches the dummy voltage supply means includes an inverter for performing a phase inversion of a signal on a data line adjacent to the dummy data line (col. 3, lines 14-47 and from col. 3, line 59 to col. 4, line 12).

4. Claims 7, 15 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (Patent No.: US 5,946,068) in view of Matoba et al. (Patent No.: US 6,333,771) and further in view of Yoshii et al. (Patent No.: US 5,719,648).

Regarding claims 7, 15 and 22, the combination of Lee and Matoba differs from claims 7, 15 and 22 in that it does not specifically teach a shorting bar for electrically connecting the dummy data line to the data line supplied with a voltage having the same phase as a voltage applied to the dummy data line. However, referring to Fig. 2, Yoshii teaches a shorting bar (13b) for electrically connecting the dummy data line to the data line supplied with a voltage having the same phase as a voltage applied to the dummy data line (col. 7, line 35 to col. 8, line 25). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the shorting bar as taught by Yoshii in the system of the combination of Lee and Matoba in order to control the brightness level efficiently.

5. Applicant's arguments with respect to claims 1-25 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jennifer T. Nguyen** whose telephone number is **703-305-3225**. The examiner can normally be reached on Mon-Fri from 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard A Hjerpe** can be reach at **703-305-4709**.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

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Washington, DC. 20231

**Or faxed to: 703-872-9306 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, sixth-floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is 703-306-0377.

JNguyen  
01/03/2005

  
**REGINA LIANG**  
**PRIMARY EXAMINER**